

## ***Biological Environment***

### **2.15 Biological Environment**

The analysis of potential impacts of the proposed project on biological resources is based on the *Natural Environment Study* (NES) (September 2010) and Supplemental NES (December 28, 2011).

Analysis of the potential impacts of the proposed project on biological resources considered the following categories of resources:

- Natural Communities (Section 2.15)
- Wetlands and Other Waters (Section 2.16)
- Plant Species (Section 2.17)
- Animal Species (Section 2.18)
- Threatened and Endangered Species (Section 2.19)
- Invasive Species (Section 2.20)

The following sections describe applicable regulatory settings; existing environments; impacts; and avoidance, minimization, and mitigation measures for these categories of biological resources.

The Biological Study Area (BSA) extends approximately 6 linear miles along I-5 (Figure 1). The northern part of the BSA is in the City of San Juan Capistrano on I-5 at San Juan Creek Road. The BSA's southern terminus is at Avenida Pico in the City of San Clemente. The BSA extends beyond the maximum area of potential direct effect where necessary to identify sensitive biological resources within and immediately adjacent to the study area, but it is limited to within the Department ROW due to lack of access permission. In general, this provided for a survey area that was larger than the area of potential direct effect.

The project segment of I-5 and the BSA traverse parts of the Cities of San Clemente, Dana Point, and San Juan Capistrano in Orange County. The northern part of the BSA is in the City of San Juan Capistrano on I-5 at San Juan Creek Road. The BSA's southern terminus is at Avenida Pico in the City of San Clemente. The BSA includes existing I-5 (Department ROW), which is surrounded by transportation, residential,

recreation, commercial, and undeveloped land uses. San Juan Creek passes under the northern end of the BSA.

## 2.15.1 Natural Communities

### 2.15.1.1 Regulatory Setting

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act (FESA) are discussed later in this document in Section 2.19, Threatened and Endangered Species. Wetlands and other waters are discussed in Section 2.16. Specific plant species and animal species are discussed in Sections 2.17 and 2.18, respectively.

### 2.15.1.2 Affected Environment

Seven vegetation communities were identified within the BSA and are shown on the biological resources figure in Appendix J of the NES. Several of the areas are a mixture of these vegetation communities. Table 2.15-1 lists the acreage of each of the vegetation communities present within the BSA.

**Table 2.15-1 Vegetation Communities  
Occurring in the BSA**

<b>Vegetation Community</b>	<b>Total Acres</b>
<b>Scrub and Chaparral Habitats</b>	
Coastal Sage Scrub	11.57
<b>Riparian and Woodland Habitats</b>	
Riparian Scrub	1.03
Freshwater Marsh	0.19
<b>Disturbed Habitats</b>	
Ruderal	48.83
Developed	231.69
Bare Ground	4.57
Ornamental	124.99
<b>Total</b>	<b>422.87</b>

Source: *Natural Environment Study*, September 2010.  
BSA = Biological Study Area

Two general natural community groups of special concern were identified within the BSA: riparian/riverine habitats and coastal sage scrub (CSS). Several patches of CSS were identified on both sides of the State ROW in the following areas: (1) north of the Camino Las Ramblas/SR-1/Via Sacramento arterial interchange; (2) along the west side of the State ROW, just south of the Camino de Estrella arterial interchange; (3) on the west side of the State ROW, just north of the Avenida Vista Hermosa arterial interchange; and (4) on the north side of I-5, northwest of Avenida Pico. Although the areas are disturbed, they are of good quality. Two riparian/riverine natural communities of special concern occur in the BSA: riparian scrub and freshwater marsh. These riparian communities occur at a few areas along I-5 within the BSA. Riparian scrub vegetation occurs along the east side of the State ROW, north of the Camino Las Ramblas/SR-1/Via Sacramento interchange, and on the west side of the State ROW, just north of the Avenida Vista Hermosa arterial interchange. Freshwater marsh vegetation was found in one area on the west side of the State ROW, just south of the Camino de Estrella interchange. In addition, a restoration area (Stonehill Drive Restoration Area) is located in the NB I-5 State ROW just south of Stonehill Drive. This restoration was put in place as a requirement of ACOE Nationwide Permit No. SPL-2006-1961-SJH, CDFG Streambed Authorization Agreement No. 1600-2006-0405-R5, and RWQCB Cleanup and Abatement Order No. R9-2-6-131. Additional information regarding the Stonehill Drive Restoration Area is provided in the Jurisdictional Delineation. All of these areas are highly degraded by nonnative invasive species and human encroachment and are of poor quality.

Other than bands of riparian habitat that many animal species use as wildlife corridors, there are no wildlife corridors within the BSA.

### **2.15.1.3 Environmental Consequences**

#### ***Temporary Impacts***

##### ***Build Alternative 4 with Design Option A (Preferred Alternative)***

The I-5 HOV Lane Extension Project Build Alternative 4 with Design Option A will result in a direct temporary impact to 0.31 ac of CSS. Areas of temporary effects will only be affected during construction to allow for construction and equipment staging. Temporary effects to CSS will be limited to incidental encroachment; otherwise, effects are considered permanent. Additionally, a small quantity of these temporary impacts to CSS (0.018 ac) will be within coastal California gnatcatcher (CAGN) designated critical habitat.

Build Alternative 4 with Design Option A is not expected to result in direct temporary impacts to riparian/riverine habitats through disturbance and/or temporary removal of existing vegetation. Construction of Build Alternative 4 with Design Option A may result in indirect temporary impacts to CSS and riparian/riverine habitats during construction due to increased noise, traffic, and litter. However, with implementation of Minimization and Avoidance Measures and Source Control BMPs, indirect temporary impacts are not anticipated.

### **Permanent Impacts**

#### **Build Alternative 4 with Design Option A (Preferred Alternative)**

The I-5 HOV Lane Extension Project would result in direct permanent impacts to CSS and riparian/riverine habitat through disturbance and/or removal of existing vegetation. Permanent impacts may include complete removal and extensive encroachment that may have substantial detrimental impacts to the long-term viability of the community and the plant and animal species associated with these natural communities. Build Alternative 4 with Design Option A will permanently impact 0.4 ac of CSS.

Additionally, Build Alternative 4 with Design Option A will permanently impact 0.07 ac of riparian scrub and 0.0 ac of freshwater marsh for a total of 0.07 ac.

However, based on the surveys and analysis completed for the Jurisdictional Delineation (August 2010), these direct permanent impacts to riparian/riverine habitats were found to not be subject to jurisdiction under Sections 404 and 401 of the CWA or under Section 1600 of the California Fish and Game Code. Because impacts to these nonjurisdictional areas were found to not be subject to jurisdiction, no compensatory mitigation is expected to be required under CEQA. However, if the agencies assert jurisdiction over an area previously found to not be subject to their jurisdiction and the project impacts this area, compensatory mitigation may be required.

Site Design, Source Control, and Treatment BMPs will be incorporated into the project to help avoid, minimize, and mitigate potential indirect adverse impacts to CSS and riparian/riverine communities.

Build Alternative 4 with Design Option A is not expected to substantially increase indirect permanent impacts to CSS and riparian/riverine communities.

Implementation of Alternative 4 with Design Option A will not result in any impact to wildlife corridors because there are no wildlife corridors within the BSA.

#### **2.15.1.4 Avoidance, Minimization, and/or Mitigation Measures**

The following measures will avoid, minimize, or mitigate potential temporary and permanent project impacts to natural communities.

The following measures will be incorporated to avoid and minimize project impacts to both CSS and riparian/riverine habitats.

- BIO-1**      Under the supervision of the Project Biologist, the limits of project impacts (including construction staging areas and access routes) will be clearly delineated with bright orange plastic fencing, stakes, flags, or markers that will be installed in a manner that does not impact habitats to be avoided and such that they are clearly visible to personnel on foot and operating heavy equipment. If work occurs beyond the fenced or demarcated limits of impact, all work will cease until the problem has been remedied to the satisfaction of the USFWS. Temporary construction fencing and markers will be removed upon project completion.
- BIO-2**      Caltrans will ensure that the following conditions will be implemented during project construction:
- The project site will be kept as clean of debris as possible. All food-related trash items will be enclosed in sealed containers and regularly removed from the site.
  - Pets of project personnel will not be allowed on the project site.
  - Impacts from fugitive dust will be avoided and minimized through watering and other appropriate measures.
  - Cut and fill will be balanced within the project or the construction contractor will identify the source or disposal location. All spoils and material disposal will be disposed of properly.
  - Appropriate erosion and siltation controls will be installed prior to the onset of vegetation clearing and be maintained in good

repair until the completion of project construction. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, will be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.

- All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated disturbed/developed areas. These designated areas will be located in such a manner as to prevent run-off from entering existing native vegetation areas.
- A construction Storm Water Pollution Prevention Plan (SWPPP) and soil erosion and sedimentation plan will be developed to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and nonpoint pollution sources on site during construction and operation. The SWPPP will identify specific BMPs to be implemented during construction so as not to cause or contribute to an exceedance of any water quality standard. In addition, the SWPPP will contain provisions for changes to the plan, such as alternative mechanisms, if necessary, during project design and/or construction to achieve the stated goals and performance standards.

CSS in the BSA is not protected by any federal, State, or local regulations, with the exception of CAGN designated critical habitat and/or occupied areas. For areas that are not protected, no compensatory mitigation is required. Measure BIO-7 below will mitigate temporary and permanent impacts to CSS.

**BIO-3** For coastal sage scrub (CSS) occupied by coastal California gnatcatcher (CAGN) or in CAGN designated critical habitat, the mitigation ratios will be consistent with the United States Fish and Wildlife (USFWS) standards. Compensatory mitigation may include off-site acquisition of conservation lands and restoration efforts to enhance or create CSS which could be accomplished through participation in the Natural Community Conservation Plan/Habitat

Conservation Plan/Master Streambed Alteration Agreement  
(NCCP/HCP/MSAA) being established by Measure M2.

In January 2010, OCTA, the Department, and the resource agencies executed a Planning Agreement and Memorandum of Agreement to initiate a NCCP/HCP/MSAA. The purpose of the NCCP/HCP/MSAA is to streamline the biological resources permitting process for the 13 Measure M2 freeway projects. This planning process commenced in July 2010 and is expected to be completed in a 24-month timeframe.

In September 2010, the OCTA Board of Directors authorized approximately \$5.5 million for restoration activities consisting of six restoration projects. These restoration projects contain benefits to multiple habitats, such as riparian, upland, CSS, oak woodland, and native grassland. On a parallel path, OCTA is currently in the process of acquiring conservation lands that will be integrated into the NCCP/HCP/MSAA planning process. The acquisition properties possess the habitats and species necessary to off-set impacts from the 13 freeway projects.

If the NCCP/HCP/MSAA process gains approval to the I-5 HOV Lane Extension Project's permit stage, compensatory mitigation will be provided through the conservation planning effort. Options for compensatory mitigation will be evaluated through coordination among OCTA, the Department, and the resource agencies. If the project permit stage occurs prior to the approval of the NCCP/HCP/MSAA planning process, then compensatory mitigation will be identified and addressed through project-level analysis.

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